HW#29: ANGLE CHASES w/ || lines & /

Honors Geometry

Due Date: Thursday October 22nd

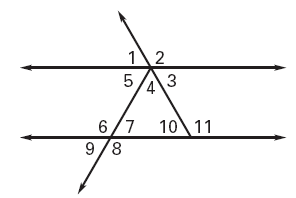
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show all work and write in complete sentences will result in LaSalle!**

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| 1. In the figure below, lines *a* and *b* are parallel, and 9 = 100. Find 1. | 2. In the figure below, segments *MA* and *HT* are parallel. HMA, MAT, ATH, and THM are all right angles. If 5 = 75 and what is the 4?  2  5  6  3  7  4  1  H  T  M  A |
| 3. The measure of one angle is 7 times the measure of its complement. Find the measure of each angle. | 4. In the figure below, lines *l* and *m* are parallel. Find the indicated angle.  45  ?  *l*  130 o o  *m* |
| 5. If 12 4, then which pairs of lines, if any, must be parallel?     1. *a b* only 2. *m n* only 3. *a b* and *m n* 4. No lines must be parallel 5. Cannot be determined from the given information   Justify your response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 6. In the figure below, lines *p* and *q* are parallel. Which of the following must be true?     1. 5 = 2 2. 6 = 4 3. 5 + 7 = 180 4. 5 + 6 = 180 5. None of the above   Justify your response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

***Use the figure below to answer #8***

8. Tell whether the angles are *vertical angles*, supplementary, or *neither*.



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| ∠10 and ∠11 | ∠7 and ∠10 | ∠6 and ∠8 | ∠2 and ∠4 |
| ∠1 and ∠2 | ∠l and ∠3 | ∠4 and ∠5 | ∠8 and ∠9 |

9. Two angles form a linear pair. The measure of one angle is 15 times the measure of the other angle. Find the measure of each angle.

10. The measure of one angle is 47° less than the measure of its supplement. Find the measure of each angle.